## Zbl 581.10019

## Erdős, Paul

Problems and results on consecutive integers and prime factors of binomial coefficients. (In English)

## Rocky Mt. J. Math. 15, 358-363 (1985). [0035-7596]

The author lists a number of interesting problems on consecutive integers and prime factors of binomial coefficients. He outlines the progress on these problems. Quite a few of the progress on these problems is due to the author. Also the author has encouraged the progress of work on these and many other problems. For example the (\$ 500) problem

$$(1/\phi(n))\sum_{i=1}^{\phi(n)-1} (u_{i+1}-u_i)^{\alpha} \ll (n/\phi(n))^{\alpha}$$

for  $\alpha = 2$  proposed by the author has been solved recently in fact for  $\alpha \geq 2$  by H. L. Montgomery and R. C. Vaughan. Here  $n \geq 3$ ,  $1 = u_1 < u_2 < ... < u_{\phi(n)} = n - 1$  are the integers less than and coprime to n.

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